

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1-11. (canceled)

12. (original) A method, comprising:

- applying a bottom anti-reflective coating comprising a polymer and a plurality of refractive polymer beads;
- applying a photoresist above the anti-reflective coating;
- patterning the photoresist;
- etching the substrate to form a first opening;
- applying a sacrificial anti-reflective coating comprising a spin-on-polymer and a plurality of refractive polymer beads over the substrate and the first opening such that the first opening is filled with the sacrificial anti-reflective coating;
- applying a photoresist over the sacrificial anti-reflective coating;
- patterning the photoresist;
- etching the substrate and the sacrificial anti-reflective material over the first opening to form a second opening; and
- filling the first opening and the second opening with a metal.

13. (original) The method of claim 12, wherein the plurality of refractive polymer beads have a core-shell structure comprising an inorganic reflective core and an organic refractive shell.

14. (original) The method of claim 12, wherein the plurality of refractive polymer beads have a core-shell structure comprising an absorbent core and an organic refractive shell.

15-17. (canceled)

18-24. (canceled)

25. (previously presented)

An antireflective coating, comprising:

a base material; and
a multi-layer mirror.

26. (previously presented) The anti-reflective coating of claim 25, further comprising a surfactant to separate pigments.

27. (previously presented) The anti-reflective coating of claim 25, wherein the anti-reflective coating is a bottom anti-reflective coating (BARC).

28. (previously presented) The anti-reflective coating of claim 25, wherein the anti-reflective coating is a sacrificial anti-reflective coating.

29. (previously presented) The anti-reflective coating of claim 25, wherein the base material is a spin-on-glass (SOG).

30. (previously presented) The anti-reflective coating of claim 25, wherein the base material is a spin-on-polymer (SOP).